



# Pre-Proposal Workshop

## Solicitation to Address High Purchase Costs and Disposal Impacts of PEV Battery Packs (PON-12-501)

Energy Research and Development Division  
California Energy Commission  
November 15, 2012



# Agenda

- Welcome and Introduction
- PIER Program – Transportation Research Area
- PON Background
- Overview of Grant Solicitation Application Manual
- Questions and Answers



# Housekeeping

- ...In case of fire
- ...Local facilities
- ...Muting of WebEx during presentation
- ...Q&A protocol



# Transportation Research Goals

**The goals of transportation-related projects are to:**

- Reduce carbon emissions
- Decrease petroleum usage
- Improve natural gas and electricity infrastructure capacity, reliability, and sustainability
- Improve air quality
- Increase the use of renewable natural gas for transportation



# Transportation Research Objectives

- **Electric Drive:** Facilitate the success of plug-in electric vehicles in the market, as well as determining their potential as a strategic technology to improve the operation of California's future power grid.
- **Natural Gas Vehicles:** Advance the commercial viability of advanced and high-efficient natural gas vehicle technology.
- **Renewable Transportation Fuel:** Develop and demonstrate innovative technologies that utilize California's waste streams to produce renewable natural gas.



# Policy Drivers

The following legislation and policy guide the Transportation subject area on meeting California's challenges:

**Governor's Executive Order (B-16-2012):** *Requires 1.5 million PEVs to be on California roadways by 2025 and a reduction of transportation related GHG emissions of 80% below 1990 levels by 2050.*

**State Alternative Fuels Plan:** *Presents strategies and actions California must take to increase the use of alternative transportation fuels.*

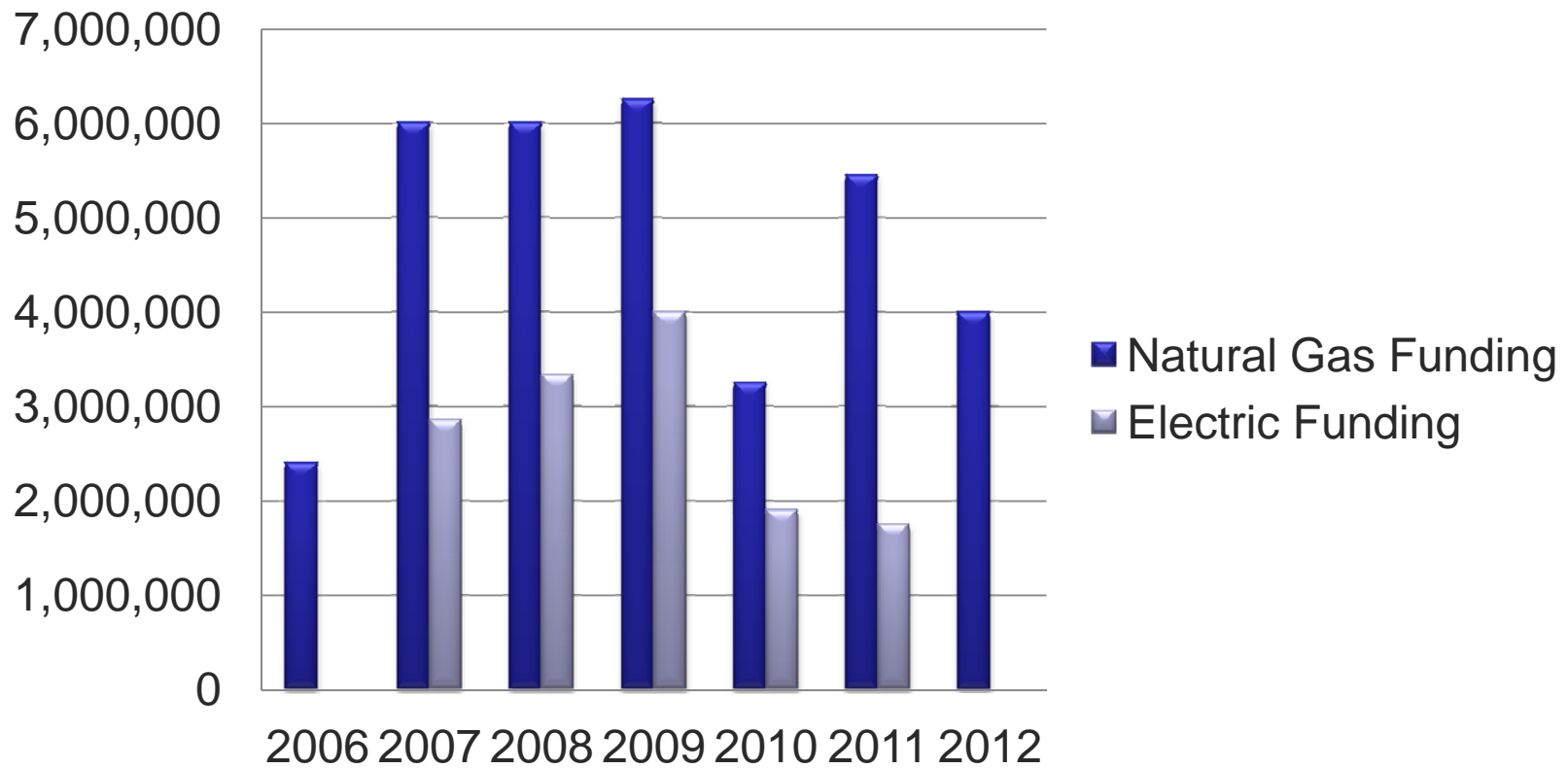
**ZEV Mandate:** *Requiring automakers to produce a combination of zero emission and partial zero emission vehicles to meet air quality goals.*

**Assembly Bill 32:** *Calls for approximately 36% of the state's 2020 GHG reduction targets to come from the transportation sector.*



# 2006-2012 Funded Research

## Transportation Research Funding





# Purpose of this Solicitation

- Fund research, development, and demonstration proposals that fall under the following topic areas:
  - Research Topic 1: Techno-Economic Assessment of PEV Battery Pack Standards
  - Research Topic 2: Large-Scale Recycling of California's PEV Battery Packs





# Context of this Research

- Plug-in Hybrid Electric Vehicle (PHEV) Research Roadmap (Pub# CEC-500-2010-039)
  - Identified the need to improve the efficiency or logistics of recycling advanced batteries on a large-scale
- Strategies for Transportation Electrification Fuel Implementation in California: Overcoming Battery First-Cost Hurdles (Pub# CEC-500-2009-091)
  - Recommended standardization of the battery pack to the extent possible



# Eligible Projects

- Research Topic 1: Develop tools, methods, and analysis to inform the development of PEV battery pack standards that reduce the life-cycle costs of PEV batteries.
- Research Topic 2: Develop and advance technologies, tools, data, and scientific knowledge that will be needed to enable large-scale recycling that avoids or minimizes the disposal impacts of California's PEV battery packs.

**See Attachment 13 for additional information on Research Topics**



# Research Topic 1

**Proposals should speak to the following objectives:**

- Describe lessons learned from previous and current standardization efforts in the auto industry and other industries.
- Estimate life-cycle cost impacts from standardizing various battery pack parameters, designs, and components.
- Evaluate potential pathways for implementing PEV battery pack standards (i.e. regulations, standards organizations, industry leader).



# Research Topic 2

**Proposals should speak to one or more of the following objectives:**

- Develop and demonstrate advanced bench-scale recycling processes and evaluate their potential for commercial scale-up in California.
- Develop and advance tools and methods that can be used to plan for large-scale recycling of PEV battery packs.



# Eligible Applicants

- Open solicitation seeking proposals from public and private entities with the exception of Publicly-Owned Utilities.
- A person may only serve as a Principal Investigator for one proposal per topic area.
- Applicant must agree to use the version of the PIER Terms and Conditions that corresponds to its organization.
- Applicants are required to register and be in good standing with the California Secretary of State to enter into an agreement with the Energy Commission.



# Other Considerations

- The proposal must include a California Based Entity (CBE) as either the grantee or as a subcontractor
- The budget must show that at least 60% of PIER funds are allocated to one or more CBEs.
- At least 60% of PIER funds must be spent in California

For more information on CBE, please refer to Attachments 10 and 11.



# Funding Information

- Up to \$1.75 million of PIER funding is available under this solicitation for grant awards.
  - Research Topic 1: \$750,000
  - Research Topic 2: \$1,000,000

### Project Funding Limits:

Research Topic 1: Applicants may request no less than **\$150,000** and no more than **\$750,000**

Research Topic 2: Applicants may request no less than **\$150,000** and no more than **\$1 million**



## California Energy Commission

# Schedule

ACTIVITY	ACTION DATE
PON Release	October 25, 2012
Pre-Application Workshop*	November 15, 2012
Deadline for Written Questions*	November 19, 2012
Distribute Questions/Answers and Addenda (if any) to PON	Est. November 30, 2012
<b>Deadline to Submit Applications by 3:00 p.m.*</b>	<b>December 10, 2012</b>
Anticipated Notice of Proposed Award Posting Date	February 2013
Anticipated Commission Business Meeting Date	May 2013
Anticipated Agreement Start Date	2-4 weeks after Commission Business Meeting Approval
Agreement Termination Date	March 31, 2015





# Selection and Award Process

- Based on the proposals submitted, a scoring committee will score the projects using the scoring criteria described in Section IV of the Application Manual.
- The scoring committee may conduct optional interviews for clarification purposes.
- A minimum score of 70 (out of 100) is required to be eligible for funding.
- Project(s) will be recommended for funding starting with the highest ranked project meeting the minimum required score in each research topic area until all funds are exhausted.



# Proposal Requirements

- Application form with original signature (Attachment 1)
- Executive summary (4 pages max)
  - Project description, objectives, and goals
- Project narrative (12 pages max)
  - Identify research topic that has been chosen
  - Discussion on how project addresses scoring criteria
  - Current state of research in area chosen, barriers, why proposed project is the next logical step, and the pathway moving forward
- Scope of work with a task-by-task description of your project.
  - See Work Statement Template (Attachment 3)
- Schedule
  - All work must be scheduled to be complete by **March 30, 2015**



# Proposal Requirements Cont'd

- Project team description
- Budget Workbook (Attachment 7)
  - Must be filled out completely and accurately
- Prevailing wage compliance certificate (if applicable)
- CEQA worksheet



# Proposal Guidelines

- One (1) original and six (6) copies of the proposal and a CD or USB
- Proposals should be typed using a standard 11-point font and single spaced
- The original and copies must be labeled "Program Opportunity Notice PON-12-501 and include the title of the application
- Proposals should **NOT** contain confidential information



# Grounds for Rejection

- An application shall be rejected if:
  - It is received after 3:00 pm on December 10, 2012
  - It contains false or intentionally misleading statements or references
  - It is intended to erroneously and fallaciously mislead the State in its evaluation of the application
  - It contains confidential information
  - It is submitted by a Publicly-Owned Utility
  - The Applicant does not agree to the Terms and Conditions
  - The budget does not include a CBE as a recipient or subcontractor



# Grounds for Rejection (Cont'd)

- The budget does not allocate 60% of funds to CBEs
- The budget does not show that at least 60% of PIER funds will be spent in California



# Grounds for Rejection (Cont'd)

- An Application may be rejected if:
  - It is not prepared in the mandatory format described
  - It is unsigned
  - The firm or individual has submitted multiple applications for each task
  - The principal investigator submits more than one application per topic area
  - It does not literally comply or contains caveats that conflict with the PON and the variation or deviation is not material, or it is otherwise non-responsive
  - The bidder has previously completed a PIER agreement and is not compliant with repaying royalties (if applicable)
  - The budget forms are not filled out completely



# Attachments

1. Application Form
- 2-3. Scope of Work Instructions and Template
- 4-5. Prevailing Wage Special Condition / Certificate
6. Prevailing Wage Q&A Information
7. Budget Forms
8. Schedule
9. CEQA Worksheet
- 10-11. CBE Entity Requirement / Form
12. Sample Resolution
13. Research Topics





# Scoring Criteria

1. Technical Merit	20
2. Technical Approach	25
3. Technical Qualifications, Management, and Project Team	15
4. Project Budget	5
5. Unloaded vs. Loaded Hourly Rates Ratio	10
6. Economic Investment in California	20
7. Match Funding	5
<b>Total Points</b>	<b>100</b>



# Solicitation Documents

**Solicitation documents for battery recycling and standardization solicitation:**

<http://www.energy.ca.gov/contracts/PON-12-501/>

- Please make sure to read all addendums.
- **Addendum 1** has the revised PON application manual that supersedes the original manual released in October.



# Questions and Answers

Written Questions are due:

**November 19, 2012**

Please send all PON related questions to  
Crystal Presley-Willis, Grants Officer at:

**[Crystal.Presley-Willis@energy.ca.gov](mailto:Crystal.Presley-Willis@energy.ca.gov)**



# Back-Up Slides



# California Based Entities (CBEs)

The California Energy Commission's Public Interest Energy Research (PIER) Program must give a priority to "California based entities" (CBEs) when making awards (Public Resource Code 25620.5(h)).

- An entity must meet all of the following requirements to be considered a CBE:
  - Either has its headquarters **OR** an office in California **AND**
  - Substantially manufactures the product **OR** substantially performs the research within California that is the subject of the award.

Please Refer to Attachments 10 and 11



# PIER Funds Spent in California

- Funds in the “Direct Labor” category and all categories calculated based on direct labor in the B-4 budget attachments (Prime and Subcontractor Labor Rates) are paid to individuals that perform the work funded by the agreement while they are physically present in California.
- Business transactions (e.g., material and equipment purchases, leases,
- and rentals) will be entered into with a business located in California.
- Airline ticket purchases are not considered funds “Spent in California”